The Emergence of the COVID Vaccine: Silver Bullet?

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The intermingling of the social and the science is a delicate process which creates multifaceted healthcare interventions aimed at the targeting of disease spread and following eradication. The recent COVID-19 pandemic and subsequent curfews and lockdowns have created a sense of restlessness towards addressing the virus. The global face of COVID-19 alleviation is the vaccine. Vaccines, when widely and equally distributed, provide relatively rapid treatment to combat the spread of infectious diseases. This narrative, combined with those fueled through prematurely published news articles, may encourage the idea that vaccines will be the silver bullet response in tackling COVID-19. However, a long-term pandemic such as COVID-19 has equally lengthy socioeconomic repercussions following from the supposed 'end', such as increased unemployment rates and lack of accessibility to adequate medical care. The vaccine could prove impactful, yet these stipulations suggest that the overreliance on a miracle cure is ill-advised and should be cushioned by thorough policy-making addressing all sectors affected by the virus.

As elaborated by Lantz et al. (2007), the hyper-focus on the notion of a miracle cure diverts attention from the wider public health grievances. The socioeconomic burdens brought upon by COVID-19 are pressured when these issues are left to manifest, rather than be incorporated into a comprehensive plan to tackle the pandemic (Benjamin et al., 2020). Firstly, the distribution of the vaccine depends largely on international relations, and the ability to procure sufficient funding to secure the vaccine (Benjamin et al., 2020). The "rat race" towards the vaccine has influenced the patterns of equal distribution, as countries producing vaccines are able to dictate the distributive efforts (Mullard, 2020). A projected $4.3 billion was needed to secure distribution of the vaccine in developing nations, due to insufficient infrastructure and funding (UN, 2020). Developing nations pre-COVID-19 withstood gaps in access to healthcare, as well as education and infrastructure to combat this. The addition of the pandemic has resulted in excess strain; without financial aid from third parties, certain nations do not possess the ability to acquire the vaccine at a pace to outweigh demand (UN, 2020). This data suggests that the distribution of the vaccine cannot reach communities that have been largely affected on a global scale to the extent that it could be classified as a silver bullet solution.

Following this, the distribution of healthcare funding and pre-existing policies in countries is a further obstacle faced when projecting the idea that the vaccine is a silver bullet. The EU member states along with five other high-income countries had pre-ordered half of the available vaccines in 2020, however this accounted for only 13% of the global population (Mullard, 2020). Buying power of high-income countries is therefore evidenced to influence the equal distribution of the vaccine, leaving the remainder of the global population amidst the pandemic. In relation to adequate funding, the details of policies within certain nations further influence the ability for the vaccine to provide resolve. For example, the United States of America (USA) is framed as a high-income country, with the largest percentage of their gross domestic product (GDP) being funnelled into healthcare, relative to similar cases (Lantz, 2019). Despite this, the USA ranks poorly on many population health indicators, suggesting that there are avenues being underfunded and rarely researched (Lantz, 2019). A vaccine for COVID-19 cannot adequately eradicate the record-high unemployment rates in the USA, peaking at 14.8% in April of 2020, specifically affecting ethnic minorities and those with lower educational attainment (CRS, 2021). Even if accessibility to the vaccine remained open to these groups, it does not address the systematic impact that the virus has had on economic and social stability. Short-term reliefs such as the stimulus cheques distributed in the USA fail to compensate for the extent of the damages caused by COVID-19 and should be paired with social outreach programmes aimed at tackling the underlying issues (Lantz et al., 2007). Taking these factors into account, the efficiency of the vaccines in reducing COVID-19 spread can be analysed and altered when deemed necessary.

On the other hand, following the steady distribution of the COVID-19 vaccines has shown that the vaccine has been successful in reducing the transmission of the virus (Kershner and Zimmer, 2021). After a Pfizer-BioNTech vaccination campaign amongst the ages of 60+, the results had shown a 41% drop in new COVID-19 cases within the age group in comparison to the statistics three weeks before (Kershner and Zimmer, 2021). Positive ripple effects caused by the impact of the vaccine included a 31% drop in 60+ years hospitalisations, as well as a 24% drop in those existing cases that became critically ill (Kershner and Zimmer, 2021). Whilst the vaccine appears to be efficient, the rise of new variants that weaken the effects of the vaccine make reliance on the vaccine risky. Furthermore, new case numbers after the initial vaccination campaign have risen in Israel, contributed to by relaxed mindsets towards the social implementations such as lockdown (Kershner and Zimmer, 2021). This example, whilst addressing the immense success of the vaccine, further urges attention to be drawn to the social sectors that are not being addressed. This would annul the ability to categorise the COVID-19 vaccine as a silver bullet.

Straightforward medical care is often posited as being an all-encompassing solution, with the vaccine propelling this narrative to the forefront in most cases. The distribution of the COVID-19 in Israel highlights the impact that vaccines have when combating disease transmission, yet also reiterates the essential role that public health plays in the fight against the pandemic. A vaccination, and more particularly the COVID-19 vaccination, should not be posited as a silver bullet solution.

The integral role that vaccines play can only be enhanced when paired with public health strategies targeting broader underlying factors that contribute to the burden of COVID-19.

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